

UNITED STATES TRANSPORTATION COMMAND
FY 1999 AMENDED BUDGET ESTIMATE
FEBRUARY 1998

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INFORMATION TECHNOLOGY
PROGRAM BUDGET

[DTIC QUALITY INSPECTED 8]

UNITED STATES TRANSPORTATION COMMAND

Executive Summary

FY 1999 Amended Budget Estimate

1. General Description:

The mission of USTRANSCOM is to provide air, land, and sea transportation for the DoD, both in time of peace and war. As a unified command, USTRANSCOM exercises combatant command and peacetime management over the common-user aspects of the global mobility network, and executes this responsibility via its Transportation Component Commands (TCCs)--the Air Mobility Command (AMC), the Military Sealift Command (MSC), and the Military Traffic Management Command (MTMC). USTRANSCOM ensures this network is capable of rapidly transitioning from peacetime to contingency and wartime operations as required by the National Command Authorities--a readiness demonstrated on a daily basis, as USTRANSCOM forces operate worldwide in direct support of U.S. humanitarian and military operations.

USTRANSCOM's ability to support the warfighting CINCs worldwide is directly tied to its centralized headquarters and three TCCs. The TCCs provide the lines of communication to the Services, ensuring assets are available when needed for a seamless transition from peace to war. Our ability to execute our responsibilities under the National Military Strategy resides in the core competencies of our TCCs. Our successes result from the synergy of military and commercial lift (air, land, and sea), air refueling, port operations, and afloat prepositioning--all involving our TCCs. During peacetime, our TCCs execute USTRANSCOM's single manager responsibilities for defense transportation involving day-to-day movement of passengers and cargo worldwide. USTRANSCOM's operation of the Defense Transportation System (DTS), during both routine and contingency operations, is the keystone of our ability to make a seamless transition from peace to war. The TCCs also provide the absolutely critical linkage to the Services' core competencies in organizing, training, and equipping forces. We are inextricably linked to Service training, operations tempo (OPTEMPO), personnel tempo (PERSTEMPO), maintenance, acquisition, logistics, and support policies and procedures--all key enablers in providing ready forces and capabilities.

USTRANSCOM has several major IT initiatives underway to support our role as the single manager for defense transportation. Our major systems under development and modernization have been selected as interim migratory systems. USTRANSCOM systems are classified as either command and control or logistics. However, in several cases, a system may fill both the command and control and logistics criteria. The dominate functionality of the systems is what was used to classify the systems as command and control or logistics.

Our Command, Control, Communications, and Computers (C4) focus is to develop/modernize systems that enable USTRANSCOM to operate as efficiently and effectively as possible and to interface properly with its customers. One of the linchpins of our program is the Global Transportation Network (GTN) which provides the automated command and control support necessary for USTRANSCOM to manage the global mobility system. GTN will also provide

USTRANSCOM's customers with the transportation information they need to manage their logistics situation. To do so, GTN will make this integrated data available to all USTRANSCOM's customers, including the National Command Authorities (NCA), Joint Chiefs of Staff (JCS), and Unified CINCs. GTN will allow us to integrate and prioritize intermodal multi-faceted transportation requirements with our lift capabilities. GTN also implements the USTRANSCOM chartered tasking to provide for deployment-related ADP systems integration, centralized oversight of traffic management in peace and war, and provides Intransit Visibility (ITV) required in OSD's Total Asset Visibility (TAV) program.

GTN is the key tool that will enable our Joint Mobility Control Group (JMCG) to optimize aircraft and ship utilization to meet customer requirements or exploit unique crew training opportunities; whereas in the past, fragmented processes often meant that additional ships or aircraft were assigned. This will be a force multiplier in the event of a major regional conflict, because the JMCG will have the command and control tools to maximize management of the movement of people and materiel.

Our components are developing and modernizing systems to manage various logistic processes and modes of transportation. Also, these systems provide the critical Command and Control (C2) data feeds to GTN. The following is a brief summary of our major initiatives by system:

2. Major initiative supported in the budget year estimates

Air Mobility Command (AMC)

AMC information technology (IT) programs and initiatives continually evolve to support USTRANSCOM and NCA in maintaining our national defense posture. These improvements will enhance programs designed to improve capabilities, reduce vulnerabilities, and promote component and system interoperability. Existing C4 systems are being modernized and integrated with new generation information systems to provide AMC a single C2 system for airlift forces. AMC's major initiatives are as follows:

a. **Command and Control Information Processing System (C2IPS):** The objective of C2IPS is to improve AMC's command and control capability at all echelons and phase out the manual paper/greaseboard/telephone environment. C2IPS provides a centralized "electronic greaseboard" capability for each functional area in the Airlift Wings, and Airlift Squadrons. During contingencies and real world deployments, the system directly supports the Commander Mobility Forces using Tanker Airlift Control Elements (TALCE), and deployed control centers. C2IPS provides the decision maker automated tools to track aircraft, and Message Distribution through the sharing of information with other key AMC C2 systems. In addition, the system extends the command and control capabilities of the AMC Headquarters Global Decision Support System (GDSS) to field units. C2IPS will interface with other key AMC C2 systems and share critical aircraft and aircrew information between HQ AMC and fixed/deployed locations. The C2IPS system development contract has been rebaselined to undergo software and hardware modernization to a client-server architecture. The client-server architecture will provide improved system performance, flexibility and supportability. The last software delivery, increment 2.0D, under the current architecture was completely fielded July 1997. Increment 2.0D fixed several interface problems between C2IPS and GDSS, standardized system edit and validation checks, and added GDSS functionality to the system. The program is scheduled to start worldwide fielding of increment 3.0a (client-server) June 1998. Implementation planning for the new architecture is still in work.

b. **Theater Deployable Communications (TDC):** Incorporates two sub-elements - a high capacity, military and commercial band SATCOM terminal and a computer and communications infrastructure package. The Lightweight Multiband Satellite Terminal (LMST), AN-TSC152 is the long haul connectivity and the Integrated Communication Access Packages (ICAP). Its primary purpose is to provide AMC/TRANSCOM with a complete integrated initial communications capability. Information Technology (IT) and C2 systems such as C2IPS, Combat Intelligence System (CIS), and Global Transportation Network (GTN) will use TDC equipment to provide connectivity among deployed and fixed forces supporting wartime taskings and Military Operations Other Than War (MOOTW).

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Military Sealift Command (MSC)

MSC's Command, Control, Communications and Computer (C4) Systems are closely integrated with those of USTRANSCOM and the other Transportation Component Commands (TCCs). MTMC has within its mission responsibilities the scheduling, loading and unloading of cargo aboard MSC operated ships, requiring an especially close working relationship and integration effort. MSC's major initiatives for FY99 are as follows:

MSC has recognized the need to change the process of managing MSC IT resources. To accomplish this change in the IT process, MSC has established an Integrated Command Environment (ICE) program that will:

(1) Provide infrastructure for interoperability and automated interfaces for MSC internal, external, and commercial entities. ICE will support the implementation of a repository, data dictionary, data warehouse Data Mart, and Operational Data Store (ODS) which will provide a logical interface to allow MSC systems to share data and will enable data interfaces with internal/external systems.

(2) Support the implementation of an environment which will allow classified and unclassified systems to interface. The standards based open systems will provide interoperability, and standard communications interfaces.

MSC Area Commands will connect to the ICE infrastructure at MSC HQ through Defense Information Systems Agency (DISA) network services. Data at these sites will be replicated in order to maintain data integrity and currency, and ensure continuity of operations. ICE will interface with users, internal MSC systems, and external systems through a variety of interfaces including:

(1) Electronic Data Interchange (EDI) transaction sets or proprietary transaction sets cooperatively designed by MSC trading partners.

(2) Standard DON or DoD messages.

(3) Interface maintained via the Standard Query Language (SQL).

(4) Message parsers (reformatting), STU-IIIs, or secure data devices.

(5) Connectivity via Defense Information System Network (DISN) services.

(6) **MSC Data Warehouse:** The MSC data warehouse vision requires validation, consolidation, and standardization of all data necessary to support the operation of the Command. Three data warehouse initiatives are now underway:

a. Business Driven Financial Data Mart (FDM). Part of the Shoreside Business Data Warehouse. This FDM will provide Program Managers and Functional Directors with the critical level of current financial detail essential to control costs.

b. Shipboard Executive Information System (ShipEIS). Satisfies the requirement to manage/review shipboard overtime expenses. The Phase 1 ShipEIS prototype was fielded in March 1997 aboard two ships.

c. MSC Enterprise Data Warehouse Infrastructure. Satisfies the requirement to integrate the warehoused data from the multiple sources of MSC data.

Military Traffic Management Command (MTMC)

MTMC's mission is to provide the DoD worldwide single port management, transportation, and traffic management services; deployment planning and engineering; and 21st Century technologies. MTMC provides an integrated network of information systems that delivers a seamless flow of data to customers and business partners. These systems empower installation transportation officers, enhance cargo visibility, and support data exchange between MTMC and its business partners. Major initiatives for FY99 are as follows:

a. **Worldwide Port System (WPS)** has met its requirements for initial functional baseline and fielding. However, because of its pivotal role, and changing technological and functional requirements, there is a need to accelerate the timeframe for technological insertion. Increased demands to incorporate Automated Identification Technology (AIT) including Radio Frequency tags and 2-D bar coding, Electronic Data Interchange (EDI), Internet based inquiry and data entry, moving to the DoD Common Operating Environment (COE) and increasing emphasis on more timely and accurate information is putting high demands on the hardware and supporting infrastructure currently fielded to WPS sites. WPS will develop and implement a common operating environment compliant data standards and accomplish modifications to make the system Year 2000 (Y2K) compliant. WPS technical concepts are based on an open systems architecture to provide the flexibility necessary to accommodate growth, change and avoid hardware dependence.

b. In support of the DoD directed Personal Property Household Goods Reengineering initiative, Transportation Operational Personal Property System (TOPS) is developing a web site for processing commercial tariffs. This will enable shipping offices and contractors to transmit billing electronically, which will reduce operating costs and improve reliability. TOPS has accelerated Electronic Data Interchange (EDI) and data standardization efforts. TOPS is currently in the renovation phase and is on schedule.

c. CONUS Freight Management (CFM) major initiatives are to accomplish Operational Test and Evaluation Command (OPTEC) testing, validate revised Economic Analysis, acquire MAISRC approval for Milestone, develop worldwide web in compliance with DoD EDI initiatives, field module redesign (electronic pricing, receipt processing), and migrate to hardware/software baseline. CFM has accelerated Electronic data interchange (EDI) implementation, Internet based inquiry and data entry, moving to the DoD Common Operating Environment (COE) and increasing emphasis on more timely and accurate information. CFM will develop and implement a common operating environment compliant data standards and accomplish modifications to make the system Year 2000 compliant.

d. The Intransit Visibility (ITV) Program initiatives are Integrated Booking System (IBS) design and development of contract administration module, IBS/GTN interface, WEB Access for vessel schedules and small ocean carrier interface, and renovation of system phase for Year 2000 compliance. Asset Management System (AMS) is undergoing major technical enhancements and expanding its functionality to include managing leased containers, and incorporating a graphical user interface and web technology to accommodate a variety of DTS customers. ICODES application software is being ported to Window NT Operating System consistent with the TC AIMS II platform. Additionally, the ITV program is implementing AIT, EDI and emerging technologies. The ITV program supports TRANSCOM's strategic goals of a DTS a fully integrated, efficient, effective DTS; and modernization of equipment and infrastructure to support current and future DTS requirement in an international environment.

HQ

Global Transportation Network (GTN) will provide the automated command and control support necessary for USTRANSCOM to carry out its mission to provide global transportation management for the Department of Defense. GTN will provide USTRANSCOM'S customers with the transportation information they need to manage cargo, forces, passenger, and patient requirements and movements with airlift, air refueling, aeromedical, and sealift schedules. This information will pass from GTN to the Joint Operation Planning and Execution System (JOPES). GTN's initiatives are as follows:

a. Continue with the GTN development contract; Deliveries 3, 4, and 5 are scheduled for completion; full operational capability for GTN has slipped from Aug 99 to Apr 00; delivery of Analysis of Mobility Platform (AMP) and Joint Flow Analysis System for Transportation (JFAST) are scheduled. New functionality is being added to GTN which will provide Commercial Transportation Information via EDI - capturing ITV data on DoD shipments moving on commercial carriers; Transportation Reference Server (TRS) - TRS will provide the means to enhance the system level distribution and synchronization of transportation reference files; development of On-line Analytic Processing (OAP) - real time business process analysis tools; Enhanced Eweb - this effort attempts to fix some of the problems with the existing Eweb; Interactive GTN - GTN proposes to be the one-stop for all DTS users with movement requirements, allowing users to submit movement requests and gain status information on the request from one place. Interactivity includes the submission of Movement Requests via WWW for: SAAM, OSA, Group Operational Passenger System (GOPAX), Export Traffic Release

Request (ETRR), and Channels; Year 2000 (Y2K) - Placed on contract in November 1997, the objective of this project is to support development, implementation, integration, testing, and validation for GTN 2000 compliance; Delivery 2.1 - This installation provides new functionality over the previous Delivery 2.0 by adding Airlift Deployment Analysis System (ADANS), Asset Management System, and GOPAX. It enhances functionality to Global Decision Support System (GDSS), CONUS Freight Management System (CFM), and Cargo Movement Operations System (CMOS); Delivery 2.2 - This installation will focus on the activation of the alternate site at Warner Robins AFB, providing a failover capability for the unclassified GTN system. It will also upgrade the following interfaces: Global Command and Control System (GCCS - Version 2.2), GDSS (Airfield data), and Integrated Command, Control, and Communication System (IC3).

b. Joint Mobility Control Group (JMCG) C4S support aims to provide the ability for JMCG watchstanders to more efficiently monitor and manage DTS requirements and movements. The JMCG reengineering project will remake the eight components of the organization into a virtual command center with large-bandwidth links for real-time command and control. C4S support has entailed upgrades to the existing USTRANSCOM infrastructure; conversion of the classified local area network (C-LAN) to Windows New Technology (WinNT); incorporation of external systems from the TCCs into the MCC for movements visibility; and consolidation of processes with the groupware application Events Logbook. Common Operating Environment (COE) compliance is the objective for the JMCG architecture as we work toward automation of data gathering in the decision process.

3. Significant Changes to the Prior Baseline Budget Submission:

a. Changes between FY98 President's Budget (PB)/FY99 President's Budget and between fiscal years of the FY99 President's Budget (all of the following charts are in thousands)

Exhibit 43 Categories	FY98	FY99	FY98	FY99	FY98	FY99
	Pres. Bud FY97	Pres. Bud FY97	Pres. Bud FY98	Pres. Bud FY98	Pres. Bud FY99	Pres. Bud FY99
1. Equipment						
Capital Purchases	\$56,506	\$50,212	\$49,860	\$40,601	\$55,194	\$63,008
Purchases/leases	\$4,190	\$3,546	\$7,264	\$8,944	\$4,765	\$6,766
TOTAL	\$60,696	\$53,758	\$57,124	\$49,545	\$59,959	\$69,774

Changes between FY98PB/FY99PB

Capital Purchases - FY97 between FY98PB and FY99PB, there are no significant cost changes. Decrease in FY98 between FY98PB and FY99PB due to a decrease in C2IPS as the program approaches Dec 98 expiration date for contractor system development. Objective Wing Command Post (OWCP) also had a significant decrease in the FY98 dollars due to HQ AMC/CC's requirement to accelerate OCONUS Air Mobility Advanced Console Systems

(AMACS) installations for AMC's "Year of the En route" initiative in FY97. No significant change in FY99 between FY98PB and FY99PB.

Purchases/leases - Increase in FY98 and FY99 between FY98PB and FY99PB is due to an acceleration effort to support AMC's corporate database development and implementation of AMC's corporate applications.

Changes between Fiscal Years-FY99PB

Capital Purchases - the decrease in FY97 to FY98 in the FY99PB is due to reduction in development of C2IPS as the program approaches Dec 98 expiration (\$5,829K); OWCP experienced a decrease due to HQ AMC/CC's requirement to accelerate OCONUS AMACS installations for AMC's "Year of the En Route" initiative in FY97 (\$2,383K); Deployed SATCOM transferred \$1,788K to the Air Force; and Systems Integration decreased \$1,063K because their FY98 funds were used to offset acceleration of the remote ITV through Deployable L-Band SATCOM. The increase from FY98 to FY99 in the FY99 PB includes hardware upgrades for the Joint Mobility Control Group (JMCG), life cycle replacement suite of Global Command and Control System (GCCS) equipment to include servers and user workstations, and a shift of funds for the Video-Teleconferencing (VTC) from FY97 to FY99. Capital purchases also increased between FY 98/FY99 due to a C2IPS increase of \$8.3M in FY99 because of a transfer of money across fiscal years. In FY99 more focus will be towards implementation of client-server architecture in the field. The changes in costs across fiscal years are driven by the number and configuration (fixed vs. deployed) of nodes procured and installed in a given fiscal year. Also, Systems Integration increased \$8,677K in FY99 to accelerate data standardization requirements, AMC corporate database development, implementation of AMC corporate applications, and business analysis capability for investment-level performance measurement of information technology required by the Clinger-Cohen Act.

Changes between FY98PB/FY99PB

Purchases/leases have increased in FY98 between the FY98PB and the FY99PB due to an acceleration effort to support AMC's corporate database development and implementation of AMC corporate applications. Decreases between FY98 and FY99 because projected installations for the existing (legacy) system have been placed on hold until client/server system is available.

Exhibit 43 Categories	FY98	FY99	FY98	FY99	FY98	FY99
	Pres. Bud FY97	Pres. Bud FY97	Pres. Bud FY98	Pres. Bud FY98	Pres. Bud FY99	Pres. Bud FY99
2. Software						
Capital Purchases	\$72,107	\$80,263	\$46,923	\$101,647	\$35,691	\$54,984
Purchases/leases	\$36,495	\$30,698	\$46,004	\$42,609	\$46,725	\$46,265
TOTAL	\$108,602	\$110,961	\$92,927	\$144,256	\$82,416	\$101,249

Changes between FY98PB/FY99PB

Capital Purchases - increases in FY98 between FY98PB and FY99PB are attributed to approval of additional funding of \$46.3 million to support Global Transportation Network (GTN) functions of bringing on line electronic data interchange from our transportation industry partners to vastly improve the In-Transit Visibility (ITV) picture, continue to enhance our worldwide web application, move into the world of "customization" where users will be able to tailor GTN information to their mission needs; and also will become a core function of the newly established Business Center. Additional increases of \$7.6 million for capital purchases are to purchase computer equipment (laptop and Automatic Identification Technology hand-held computers), telecommunications equipment (Inmarsat M-Phone), and provide software development (remote ITV integration into existing L-Band system) necessary for use by deployed AMC units. In FY98 AMC will start the replacement of aging L-Band system equipment. The FY99 increase from the FY98PB to the FY99PB provides funding necessary to modernize and improve the Defense Transportation System (DTS) Information Technology to support USTRANSCOM Automated Information Systems (AIS) development and deployment. The Global Transportation Network (GTN) will provide the automated command and control support necessary for USTRANSCOM to carry out its mission to provide global transportation management for the DoD the addition of the AMC CINC directed remote ITV improvements and sustainment/replacement of aging L-Band system equipment. Increases in FY99 will continue the equipment purchases started in FY98 and start replenishment of the original L-Band equipment (laptop computer, system transceivers, and computer router). The System Integration FY99 baseline was increased to accelerate data standardization requirements, AMC corporate database development, and implementation of AMC corporate applications, and business analysis capability for investment-level performance measurement of information technology required in the Clinger-Cohen Act of 1996.

Changes between Fiscal Years-FY99PB

Capital Purchase- Increase from FY97 to FY98 in the FY99PB is due to approval of additional funding for GTN. Decrease from FY98 to FY99 in the FY99PB is attributed to GTN's accelerated funding approval in FY98 and its being scheduled for full operational capability (FOC) in Apr 00. The additional development planned in FY98 will be nearly complete with only portions of the Reference Server and Commercial Transaction Interface capability still under development.

Purchases/leases- Increase from FY97 to FY98 in the FY99PB will purchase computer equipment for the L-Band SATCOM program (\$5.6 million): laptop and Automatic Identification Technology hand-held computers, telecommunications equipment (Inmarsat M-Phone), and provide software development (remote ITV integration into existing L-Band system) necessary for use by deployed AMC units. We will begin sustainment/replacement of aging L-Band system equipment. A \$4 million increase in CAMPS from FY97 to FY98 is due to the ramp up of CAMPS software development (\$2.8 million) and the purchase of new CAMPS hardware (\$1.2 million) for users in the TACC.

Exhibit 43 Categories	FY98	FY99	FY98	FY99	FY98	FY99
	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud
	FY97	FY97	FY98	FY98	FY99	FY99
3. Services						
Communications	\$7,300	\$5,009	\$6,765	\$4,536	\$7,152	\$3,903
Processing	\$22	\$22	\$22	\$22	\$23	\$5
Other	\$1,126	\$1,126	\$763	\$763	\$803	\$190
TOTAL	\$8,448	\$6,157	\$7,550	\$5,321	\$7,978	\$4,098

Changes between FY98PB/FY99PB and Changes between fiscal years-FY99PB

Decreases in this category are attributed to complete review of the program which led to a more favorable estimate from the FY98PB to the FY99PB and between fiscal years in the FY99PB.

Exhibit 43 Categories	FY98	FY99	FY98	FY99	FY98	FY99
	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud
	FY97	FY97	FY98	FY98	FY99	FY99
4. Support Services						
Software	\$24,184	\$25,884	\$31,673	\$32,751	\$31,708	\$48,295
Equipment Maintenance	\$20,238	\$18,903	\$20,770	\$17,671	\$21,523	\$20,656
Other	\$7,041	\$14,480	\$5,663	\$15,162	\$4,651	\$14,761
TOTAL	\$51,463	\$59,267	\$58,106	\$65,584	\$57,882	\$83,712

Changes between FY98PB/FY99PB and Changes between fiscal years-FY99PB

Software in all years increased between the FY98PB and FY99PB as well as between fiscal years in the FY99PB to maintain the Sealift Strategic Analysis System (SEASTRAT), which migrated to GTN from the Military Sealift Command (MSC); and the Strategic Deployment System (STRADS) which migrated to GTN from Military Traffic Management Command (MTMC). Increase is also a result of maintaining additional capabilities delivered under deliveries 1 and 2 and nine months of maintenance of the Reference Server.

Changes between FY98PB/FY99PB

Increases in Other Support Services for years FY97 through FY99 is the result of GO81 beginning a fee-for-service option which aligned funding from equipment maintenance funding to the support services-other funding.

Exhibit 43 Categories	FY98		FY99		FY98		FY99		FY98		FY99	
	Pres.	Bud	Pres.	Bud	Pres.	Bud	Pres.	Bud	Pres.	Bud	Pres.	Bud
	FY97	FY97	FY97	FY97	FY98	FY98	FY98	FY98	FY99	FY99	FY99	FY99
5. Supplies	\$1,348		\$1,185		\$1,018		\$1,144		\$988		\$892	
TOTAL	\$1,348		\$1,185		\$1,018		\$1,144		\$988		\$892	

Changes between FY98PB/FY99PB

Increase in FY97 and FY98 between FY98PB/FY99PB in MSC is due to the proliferation of computers throughout the command which results in greater use/need of items such as paper, disks, toner, etc. Decrease in FY99 between FY98PB/FY99PB is due to a shift of expenses from supplies in the IT program to other general contract expenses outside the IT program. Decrease also attributed to MTMC's system transitioning from FOC to sustainment.

Exhibit 43 Categories	FY98		FY99		FY98		FY99		FY98		FY99	
	Pres.	Bud	Pres.	Bud	Pres.	Bud	Pres.	Bud	Pres.	Bud	Pres.	Bud
	FY97	FY97	FY97	FY97	FY98	FY98	FY98	FY98	FY99	FY99	FY99	FY99
6. Personnel												
Software	\$2,354		\$2,228		\$2,182		\$2,051		\$2,195		\$2,063	
Equipment Maint.												
Processing	\$131		\$71		\$134		\$71		\$137		\$73	
Communications												
Other	\$5,845		\$6,489		\$5,259		\$5,998		\$5,280		\$6,094	
TOTAL	\$8,330		\$8,788		\$7,575		\$8,120		\$7,612		\$8,230	

Changes between FY98PB/FY99PB

Decrease in all years in Processing is due to MSC's changes in assignment of personnel between TWCF and Navy Working Capital Fund.

Exhibit 43 Categories	FY98		FY99		FY98		FY99		FY98		FY99	
	Pres. Bud		Pres. Bud		Pres. Bud		Pres. Bud		Pres. Bud		Pres. Bud	
	FY97		FY97		FY98		FY98		FY99		FY99	
7. Other(Non-FIP Resources)												
Purchases/leases	\$1,075		\$1,080		\$643		\$653		\$538		\$357	
TOTAL	\$1,075		\$1,080		\$643		\$653		\$538		\$357	

Changes between FY98PB/FY99PB

Decrease in FY99 between the FY98PB/FY99PB is attributed to a shift of expenditures from Purchases/leases in the IT program to other general contract expenses outside the IT program. Decrease also attributed to MTMC's system transitioning from Full Operating Capability (FOC) to sustainment.

Changes between Fiscal Years-FY99PB

Decrease from FY97/FY98 and FY98/FY99 in the FY99PB is due to MTMC's system transitioning from FOC to sustainment.

Exhibit 43 Categories	FY98		FY99		FY98		FY99		FY98		FY99	
	Pres. Bud		Pres. Bud		Pres. Bud		Pres. Bud		Pres. Bud		Pres. Bud	
	FY97		FY97		FY98		FY98		FY99		FY99	
8. Intra-Governmental Payments												
Software	\$8,445		\$8,957		\$9,093		\$9,232		\$8,321		\$5,353	
Processing	\$2,875		\$3,049		\$3,095		\$3,143		\$2,833		\$1,822	
Communications	\$252		\$267		\$271		\$275		\$248		\$160	
Other	\$6,396		\$6,785		\$6,887		\$6,993		\$6,302		\$4,055	
TOTAL	\$17,968		\$19,058		\$19,346		\$19,643		\$17,704		\$11,390	

Changes between FY98PB/FY99PB

Decrease in FY99 between the FY98PB/FY99PB is attributed to a shift of expenses in the IT program to other general contract expenses outside the IT program.

4. Year 2000 (Y2K) Compliance

Air Mobility Command (AMC) is on track to achieve (Y2K) compliance. Our mission critical IT systems have been identified and fix actions have already begun; each system has a plan to complete its efforts by the Air Force milestone of 31 Dec 1998. AMC has also begun to identify our mission critical infrastructure and has a process in place to fix any Y2K problems identified. Other efforts include verifying the Y2K compliancy of our aircraft systems and ensuring contingency plans are written/updated to include possible Y2K effects.

Military Sealift Command (MSC) is accelerating its Y2K program. MSC follows the DoD Y2K phases and end dates. Information systems Y2K actions are being undertaken to correct both hardware and software systems. Embedded systems activities have ramped up with a flag-level Y2K Program Management Office being established to manage the command-wide effort.

Military Traffic Management Command (MTMC) will develop and implement a Common Operating Environment (COE) compliant data standards and accomplish modifications to make the system Year 2000 compliant. Transportation Operational Personal Property Standard Systems (TOPS) is COE/Technical Architecture Framework for Information Management (TAFIM) compliant and is developing modifications to make the system Y2K compatible. The system is currently in the renovation phase and is on schedule. CONUS Freight Management (CFM) will develop and implement a common operating environment compliant data standards and accomplish modifications to make the system Year 2000 compliant.

USTRANSCOM's Y2K program is on schedule. A five phase corporate strategy, (awareness, assessment, renovation, validation and implementation) was implemented last year with a completion date of December 1998. Awareness was completed in January 1997 and assessment phase was completed in October 1997. Renovation phase is scheduled for completion in June 1998 and as of 16 January 1997 all 98 reported systems are on schedule.

UNITED STATES TRANSPORTATION COMMAND
FY 1999 AMENDED BUDGET ESTIMATE

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UNITED STATES TRANSPORTATION COMMAND
FY 1999 AMENDED BUDGET ESTIMATE

43 Report on Information Technology Resources

DEPARTMENT OF DEFENSE
Department of Defense
Report on Information Technology (IT) Resources
FY 1999 Amended Budget Estimate
(Dollars in Thousands)

	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>
1. Equipment			
A. Capital Purchases	50,212	40,601	63,008
B. Purchases/Leases	3,546	8,944	6,766
Subtotal	<u>53,758</u>	<u>49,545</u>	<u>69,774</u>
2. Software			
A. Capital Purchases	80,265	101,647	54,984
B. Purchases/Leases	30,698	42,609	46,265
Subtotal	<u>110,963</u>	<u>144,256</u>	<u>101,249</u>
3. Services			
A. Communications	5,009	4,536	3,903
B. Processing	22	22	5
C. Other	1,126	763	190
Subtotal	<u>6,157</u>	<u>5,321</u>	<u>4,098</u>
4. Support Services			
A. Software	25,884	32,751	48,295
B. Equipment Maintenance	18,903	17,671	20,656
C. Other	14,480	15,162	14,761
Subtotal	<u>59,267</u>	<u>65,584</u>	<u>83,712</u>
5. Supplies	1,185	1,144	892
6. Personnel (Compensation/Benefits)			
A. Software	2,228	2,051	2,063
B. Equipment Maintenance	0	0	0
C. Processing	71	71	73
D. Communications	0	0	0
E. Other	6,489	5,998	6,094
Subtotal	<u>8,788</u>	<u>8,120</u>	<u>8,230</u>
7. Other (Non-FIP Resources)			
A. Capital Purchases	0	0	0
B. Other Current	1,080	653	357
Subtotal	<u>1,080</u>	<u>653</u>	<u>357</u>
8. Intra-Governmental Payments			
A. Software	8,957	9,232	5,353
B. Equipment Maintenance	0	0	0
C. Processing	3,049	3,143	1,822
D. Communications	267	275	160
E. Other	6,785	6,993	4,055
Subtotal	<u>19,058</u>	<u>19,643</u>	<u>11,390</u>
9. Intra-Governmental Collections			
A. Software	0	0	0
B. Equipment Maintenance	0	0	0
C. Processing	0	0	0
D. Communications	0	0	0
E. Other	0	0	0
Subtotal	<u>0</u>	<u>0</u>	<u>0</u>
NET IT RESOURCES	<u>260,256</u>	<u>294,266</u>	<u>279,702</u>
Workyears	106	106	102
Non-DWCF	0	0	0
DWCF	106	106	102

DEPARTMENT OF DEFENSE
Department of Defense
Report on Information Technology (IT) Resources
FY 1999 Amended Budget Estimate
(Dollars in Thousands)

<u>Appropriation/Fund</u>	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>
4930 DWCF Operations	93,702	109,729	111,698
4931 DWCF Capital	166,554	184,537	168,004
<hr/> Total By Appropriation:	<hr/> 260,256	<hr/> 294,266	<hr/> 279,702

NOTE 1: Military Personnel Cost in the DWCF is computed at the equivalent civilian rate as prescribed by the DWCF Guidance.

NOTE 2: FY 1997 and beyond reflect a \$100K investment/expense threshold. Working capital funds comply with the investment/expense threshold established by Congress which is presently \$100K.

UNITED STATES TRANSPORTATION COMMAND

FY 1999 AMENDED BUDGET ESTIMATE

43 (IT-1) Descriptive Summary

<u>CIM Area/Automated Information System</u>	<u>Page</u>
Command and Control Major Automated Information Systems	
Command and Control Information Processing System (C2IPS)	5
Global Transportation Network (GTN)	5
Theater Deployed Communications (TDC)	5
Command and Control Non-Major Automated Systems/Initiatives	
Core Automated Maintenance System (CAMS)	5
Global Air Transportation Execution System (GATES)	5
Global Decision Support System/Multi-Level	5
System Integration (SYS INTG)	6
Logistics Non-Major Systems/Initiatives	
CONUS Freight Management (CFM)	7
Intransit Visibility	7

Note: Changes from the FY98 President's Budget are the exclusions of the following Programs due to the threshold change: Integrated Command, Control & Communication, Transportation Operational Personal Property Standard (TOPS); inclusion of Theater Deployable Communications (TDC) which is an Other Major Special Interest Initiatives, and Intransit Visibility (ITV).

DEPARTMENT OF DEFENSE
All Components
Information Technology Resources by Functional Area
FY 1999 Amended Budget Estimate
(Dollars in Thousands)

	FY 1997	FY 1998	FY 1999
Functional Area Applications Area (AIS)			
A. Command and Control			
1. Major Systems/Initiatives			
COMMAND & CONTROL INFORMATION PROCESSING SYSTEM (C2IPS)			
Development/Modernization	27,124	18,695	27,040
Current Services	12,449	19,331	19,944
Subtotal	39,573	38,026	46,984
Appropriation/Fund			
DWCF Operations	12,449	19,331	19,944
DWCF Capital	27,124	18,695	27,040
GLOBAL TRANSPORTATION NETWORK (GTN)			
Development/Modernization	51,956	66,830	16,039
Current Services	4,233	5,925	6,823
Subtotal	56,189	72,755	22,862
Appropriation/Fund			
DWCF Operations	4,233	5,925	6,823
DWCF Capital	51,956	66,830	16,039
THEATER DEPLOYABLE COMMUNICATIONS (TDC)			
Development/Modernization	5,071	4,120	6,270
Current Services	273	1,135	1,657
Subtotal	5,344	5,255	7,927
Appropriation/Fund			
DWCF Operations	273	1,135	1,657
DWCF Capital	5,071	4,120	6,270
2. Non-Major Systems/Initiatives			
CORE AUTOMATED MAINTENANCE SYSTEM (CAMS) (GO81)			
Development/Modernization	2,292	2,300	2,430
Current Services	5,803	8,444	9,072
Subtotal	8,095	10,744	11,502
Appropriation/Fund			
DWCF Operations	5,803	8,444	9,072
DWCF Capital	2,292	2,300	2,430
GLOBAL AIR TRANSPORTATION EXECUTION SYSTEM (GATES)			
Development/Modernization	11,944	12,044	10,100
Current Services	5,794	6,961	7,503
Subtotal	17,738	19,005	17,603
Appropriation/Fund			
DWCF Operations	5,794	6,961	7,503
DWCF Capital	11,944	12,044	10,100
GLOBAL DECISION SUPPORT SYSTEM/MULTI-LEVEL SECURITY (GDSS/MLS)			
Development/Modernization	1,790	2,532	3,655
Current Services	4,883	6,685	7,381

DEPARTMENT OF DEFENSE
All Components
Information Technology Resources by Functional Area
FY 1999 Amended Budget Estimate
(Dollars in Thousands)

	FY 1997	FY 1998	FY 1999
Subtotal	6,673	9,217	11,036
Appropriation/Fund			
DWCF Operations	4,883	6,685	7,381
DWCF Capital	1,790	2,532	3,655
SYSTEM INTEGRATION (SYS INTG)			
Development/Modernization	9,137	8,074	16,751
Current Services	1,337	1,537	3,061
Subtotal	10,474	9,611	19,812
Appropriation/Fund			
DWCF Operations	1,337	1,537	3,061
DWCF Capital	9,137	8,074	16,751
3. All Other Command and Control			
Development/Modernization	15,727	21,362	34,663
Current Services	43,137	42,853	41,260
Subtotal	58,864	64,215	75,923
Appropriation/Fund			
DWCF Operations	43,137	42,853	41,260
DWCF Capital	15,727	21,362	34,663
4. Total Command and Control			
Development/Modernization	125,041	135,957	116,948
Current Services	77,909	92,871	96,701
Subtotal	202,950	228,828	213,649
Appropriation/Fund			
DWCF Operations	77,909	92,871	96,701
DWCF Capital	125,041	135,957	116,948
B. Finance			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
3. All Other Finance			
Development/Modernization	316	2,153	2,161
Current Services	3,952	4,350	4,264
Subtotal	4,268	6,503	6,425
Appropriation/Fund			
DWCF Operations	3,952	4,350	4,264
DWCF Capital	316	2,153	2,161
4. Total Finance			
Development/Modernization	316	2,153	2,161
Current Services	3,952	4,350	4,264
Subtotal	4,268	6,503	6,425
Appropriation/Fund			
DWCF Operations	3,952	4,350	4,264
DWCF Capital	316	2,153	2,161

DEPARTMENT OF DEFENSE
All Components
Information Technology Resources by Functional Area
FY 1999 Amended Budget Estimate
(Dollars in Thousands)

	FY 1997	FY 1998	FY 1999
C. Logistics			
1. Major Systems/Initiatives			
2. Non-Major Systems/Initiatives			
CONUS FREIGHT MANAGEMENT SYSTEM			
Development/Modernization	8,586	14,200	13,050
Current Services	<u>450</u>	<u>450</u>	<u>450</u>
Subtotal	9,036	14,650	13,500
Appropriation/Fund			
DWCF Operations	450	450	450
DWCF Capital	8,586	14,200	13,050
INTRANSIT VISIBILITY (ITV)			
Development/Modernization	7,430	8,141	9,994
Current Services	<u>250</u>	<u>250</u>	<u>250</u>
Subtotal	7,680	8,391	10,244
Appropriation/Fund			
DWCF Operations	250	250	250
DWCF Capital	7,430	8,141	9,994
3. All Other Logistics			
Development/Modernization	25,181	24,086	25,851
Current Services	<u>11,141</u>	<u>11,808</u>	<u>10,033</u>
Subtotal	36,322	35,894	35,884
Appropriation/Fund			
DWCF Operations	11,141	11,808	10,033
DWCF Capital	25,181	24,086	25,851
4. Total Logistics			
Development/Modernization	41,197	46,427	48,895
Current Services	<u>11,841</u>	<u>12,508</u>	<u>10,733</u>
Subtotal	53,038	58,935	59,628
Appropriation/Fund			
DWCF Operations	11,841	12,508	10,733
DWCF Capital	41,197	46,427	48,895
Total - All AIS	<u><u>260,256</u></u>	<u><u>294,266</u></u>	<u><u>279,702</u></u>

DEPARTMENT OF DEFENSE
All Components
Information Technology Resources by Functional Area
FY 1999 Amended Budget Estimate
(Dollars in Thousands)

	FY 1997	FY 1998	FY 1999
** Over All Total **			
Functional Area Grand Total			
Development/Modernization	166,554	184,537	168,004
DWCF Capital	166,554	184,537	168,004
Current Services	93,702	109,729	111,698
DWCF Operations	93,702	109,729	111,698
DWCF Capital	0	0	0
Total	260,256	294,266	279,702
DWCF Operations	93,702	109,729	111,698
DWCF Capital	166,554	184,537	168,004
	<u>260,256</u>	<u>294,266</u>	<u>279,702</u>
Total - All IT Resources	260,256	294,266	279,702

UNITED STATES TRANSPORTATION COMMAND
FY 1999 AMENDED BUDGET ESTIMATE

43 (IT-2) Descriptive Summary

<u>CIM Area/Automated Information System</u>	<u>Page</u>
Command and Control Major Automated Information Systems	
Command and Control Information Processing System (C2IPS)	10
Theater Deployable Communications (TDC)	13
Exhibit 300B	
Command and Control Major Automated Information Systems	
Global Transportation Network (GTN)	16

NOTE: Changes from the FY98 President's Budget is the inclusion of Theater Deployable Communications (TDC) and exclusions of Core Automated Maintenance System (CAM/G081), Global Air Transportation Execution System (GATES), Global Decision Support System Multi-Level (GDSS/MLS), System Integration (SYS INTG), Integrated Command, and Control & Communication, Transportation Operational Personal Property Standard (TOPS), and CONUS Freight Management (CFM).

UNITED STATES TRANSPORTATION COMMAND
Descriptive Summary
FY 1999 AMENDED BUDGET ESTIMATE

A. AIS Title and Number: Command and Control Information Processing System (C2IPS) 0397

B. Information Technology by Functional Area: Command and Control

C. Life Cycle Cost and Program Cost:

1. Then year (Inflated) dollars (in millions of dollars)

Approved Life Cycle Cost: \$863.6 (in millions of dollars)*
(state milestone approval reference source: Milestone III Production Approval)

Approved Program Cost: \$576.9 (in millions of dollars)*
(state milestone approval reference source: Milestone II Production Approval)

2. Constant base year (FY 1989 - specify base year) dollars (in millions of dollars):

Approved Life Cycle Cost: \$667.8 (in millions of dollars)

Approved Program Cost: \$448.2 (in millions of dollars)

3. Sunk Cost (actual): \$401.9 (in millions of dollars)

4. Cost To Complete: \$461.7

5. (in millions of dollars)

* Program cost based on Economic Assessment completed in 1992, under study for update due to change of program's technical architecture.

D. Cross Reference to Justification Books: FY99 President's Budget (Exhibit 9B).

E. System Description: System will provide automated data and message handling as well as decision support aids to improve AMC's wartime C2 capability. It will provide quicker, more efficient access to local or theater information and distribute information to other command and control locations worldwide. It will provide critical summary level, in-transit visibility information for use by senior decision makers. When completely installed there will be 64 fixed locations and 107 deployable nodes capable of responding to worldwide contingencies.

Mission Need Statement and Operational Requirements Document was last updated April 1993 with approval of the Chief of Staff of the USAF. Fulfillment of documented requirements still in progress.

F. Program Accomplishments and Plans

1. No acquisition milestones are pending. C2IPS reached initial operating capability in 1992, and received Milestone III Production & Deployment approval in 1993. C2IPS receives MAISRC oversight.

2. FY97 Accomplishments: The last software release, increment 2.0d, under the current architecture, was completely fielded July 1997. Increment 2.0D fixed several interface problems between C2IPS and the Global Decision Support System (GDSS), standardized system edit and validation checks, and added GDSS functionality to the system. System development contract was rebaselined to provide system redesign to a client-server architecture in increment 3.0a. The client-server architecture will provide improved system performance, flexibility and supportability. Hardware units to support the new system are expected to cost much less than the current system requires. Originally planned hardware purchases were curtailed pending redesign decisions. Most of the original FY97 hardware funds were used to cover incentives for early delivery of increment 2.0d.

3. FY98 Planned Program: Software increment 3.0 is targeted for delivery in Feb 98. Fielding of the new system architecture will begin during CY98. The new architecture will be implemented as rapidly as possible during FY98 and FY99 at all existing C2IPS locations and at future sites (current approved baseline calls for 171 C2IPS nodes at Air Force locations worldwide, of which 94 were fielded at the end of FY96). System expansion and further software development goals are dependent upon the success of conversion to client-server.

4. FY99 Planned Program: System-wide fielding of client server architecture will continue. The existing contract for system development expires after Dec 98. The logistics support contract expires after Mar 99. An acquisition strategy to provide follow-on support is in-work. Integration with Theater Battle Management and Global Command and Control System common operating environment standards will heavily influence future decisions with regard to the path C2IPS takes after contract expiration in FY99.

G. Contract Information:

Prime Contractor: Computer Sciences Corporation
Contract Award Date: FY89
Description of Contract: FPIF
Contract Length: 3 years with 6 options (1 year per option)
Contract Number: F19628-89-C-0007

H. Changes from the PB:

1. Technical Changes: C2IPS is undergoing a major re-engineering to a client-server architecture. This constitutes a major step in system migration to a corporate C2 environment in line with planned integration into the Theater Battle Management Core System. The development contract is being re-baselined to provide for completion of this re-design by the end of CY98.

2. Schedule Changes: Program rebaselining replaces the old schedule with a new plan to rearchitect the existing system. The original approved baseline of 171 nodes (64 fixed and 107 deployable) remains in effect (the June 95 draft baseline of 203 has been suspended pending completion of the rebaselining effort). Initial hardware purchases for 171 nodes are scheduled to continue through FY00.

3. Cost Changes:

(a) Between FY98 PB and FY99PB

	FY98	FY99	FY98	FY99	FY98	FY99
	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud
	FY97	FY97	FY98	FY98	FY99	FY99
Development/Modernization	\$28,700	\$27,124	\$21,295	\$18,695	\$24,567	\$27,040
Current Services/Operations	\$14,176	\$12,449	\$20,349	\$19,331	\$21,562	\$19,944
Total	\$42,876	\$39,573	\$41,644	\$38,026	\$46,129	\$46,984

Description of Change in Dev/Mod: No significant changes

Description of Change in Current Services: No significant changes.

(b) Significant differences between fiscal years

	FY97/98	FY98/99
Development/Modernization	-8,429	8,345
Current Services/ Operations	6,882	613
Total	-\$1,547	\$8,958

Description of Change in Dev/Mod: Development/Modernization costs decrease by \$8.4 million in FY98. Of this decrease, \$5.8 million is due to reduction in software development as program approaches Dec 98 expiration date for contractor system development. More focus will be towards implementation of client-server architecture in the field. The remainder of the decrease is due to a realignment of \$2.6 million in FY98 from this program to meet other AMC priorities. The realignment between FY's is corrected in FY99 and is the reason for the FY99 increase. The purpose of this \$2.6 is to buy hardware for the new client-server architecture, which will be delayed until FY99.

Description of Change in Current Services: Services/Operations costs increase by \$6.9 million in FY98 because C2IPS fielding will resume in FY98. The changes in costs across fiscal years are driven by the number and configuration (fixed vs. deployed) of nodes procured and installed in a given fiscal year. This schedule is determined by the system customer (HQ AMC/DOU) and sent to HQ AMC/SC via an approved system baseline. Fixed nodes have higher equipment and installation costs, and so for those years where fixed nodes are being installed, the ratio of nodes to dollars is lower.

UNITED STATES TRANSPORTATION COMMAND
Descriptive Summary
FY 1999 AMENDED BUDGET ESTIMATE

- A. AIS Title and Number: Theater Deployable Communications, 1912
- B. CIM Functional Area: Command and Control
- C. Life Cycle Cost and Program Cost:

1. Then year (Inflated) dollars (in millions of dollars)

Approved Life Cycle Cost: \$58.4

Approved Program Cost: \$44.9

2. Constant base year (FY 1997) dollars (in millions of dollars):

Approved Life Cycle Cost: \$58.4

Approved Program Cost: \$44.9

3. Sunk Cost (actual): \$7.15 (in millions of dollars)

4. Cost To Complete: \$51.25 (in millions of dollars)

- D. Cross Reference to Justification Books: FY98 President's Budget (Exhibit 9B)

E. System Description: TDC incorporates two sub-elements: a high capacity, military and commercial band SATCOM terminal and a computer and communications infrastructure package. The Lightweight Multiband Satellite Terminal (LMST), AN-TSC152, is the long haul connectivity provider and the Integrated Communication Access Packages (ICAP) provides the deployed infrastructure. Its primary purpose is to provide AMC/TRANSCOM with a complete integrated initial communications capability of deployed access to the Secret Internet Protocol Routing Network (SIPRNET), unclassified but sensitive Internet Protocol Routing Network (NIPRNET), and Defense Switched Network (DSN). Information Technology (IT) and Command and Control (C2) systems such as Command and Control Information Processing System (C2IPS), Combat Intelligence System (CIS), and Global Transportation Network (GTN) will use TDC equipment to provide connectivity among deployed and fixed forces supporting wartime taskings and Military Operations Other Than War (MOOTW).

- F. Program Accomplishments and Plans:

1. Milestone table:

		FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
McGuire AFB, NJ							
	LMST		1	1	1	1	
	ICAP		1		1		1
Travis AFB, CA							
	LMST	1	1	1		1	1
	ICAP	1	1	1	1	1	1

2. FY 1997 Accomplishments: Purchase 2 ICAPs

3. FY 1998 Planned Program: Purchase 1 LMSTs, 1 ICAP

4. FY 1999 Planned Program: Purchase 1 LMST, 2 ICAPs

G. Contract Information: LMST II, Harris Corporation, Melbourne FL, DAAB07-95-C-A518, 31 Jul 95 ARMY CECOM is procuring agent; ICAP Contract, Motorola Inc., Scottsdale Az. F19628-96-D-0066, 24 Oct 96, HQ ESC/TG, Hanscom AFB, MA procuring agent.

H. Comparison with FY 1998 Description Summary:

1. Technical Changes: No technical changes planned.
2. Schedule Changes: Reduction of 1 LMST purchased in FY 98.
3. Cost Changes: \$1M transferred from FY98 to FY99 for L-Band SATCOM.

(a) Between FY98 PB and FY99 PB

	FY98	FY99	FY98	FY99	FY98	FY99
	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud	Pres. Bud
	FY97	FY97	FY98	FY98	FY99	FY99
Development/Modernization	\$5,116	\$5,071	\$5,120	\$4,120	\$5,270	\$6,270
Current Services/Operations	\$360	\$273	\$1,142	\$1,135	\$1,678	\$1,657
Total	\$5,476	\$5,344	\$6,262	\$5,255	\$6,948	\$7,927

Description of Change in Dev/Mod: Absorbed \$1M shift from FY 98 - FY 99 due to L-Band SATCOM.

Description of Change in Current Services: \$87K difference for FY 98/99 PBES for FY97 attributable gradual implementation of systems thereby reducing cost during one year of operation.

(b) Significant differences between fiscal years

	FY97/98	FY98/99
Development/Modernization	-951	2,150
Current Services/ Operations	863	522
Total	-88	2672

Description of Change in Dev/Mod: Development/Modernization costs increase of \$2,150 in FY99 due to additional TDC systems being fielded.

Description of Change in Current Services: Current services/Operations costs increase by \$863K in FY98 and \$522K in FY99 in support of additional TDC Systems being fielded.

Capital Asset Plan and Justification**Description Information:**

Ongoing Project

Organization POC: Colonel Ronald F. Casey, (DSN 576) 618-256-8017, Fax: ext. 6460

DIST Number: 31001864

Current Year 2000 Phase: Renovation

Migration System Status: GTN is a Migration System

PART I: SUMMARY OF SPENDING FOR PROJECT STAGES

(In millions)

Project is Milestone III, Phase I.

Life Cycle Period through FY09

	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>	<u>FY00-03</u>	<u>Total</u>
TWCF - Development/Modernization	\$52.0	\$66.8	\$16.0	\$19.4	\$154.2
TWCF - Current Services/Operations	4.2	5.9	6.8	34.5	51.4
Total Resources by FY	\$56.2	\$72.7	\$22.8	\$53.9	\$205.6

PART II: JUSTIFICATION AND OTHER INFORMATION**A. Justification:**

The Global Transportation Network provides the automated command and control support necessary for USTRANSCOM to carry out its mission to provide global transportation management for the Department of Defense (DOD). GTN will also provide USTRANSCOM's customers with the transportation information they need to manage their logistics situation. To do so, GTN will integrate supply, cargo, forces, passenger, and patient requirements and movements with airlift, air refueling, aeromedical, and sealift schedules and movements. In addition to making this integrated data available to USTRANSCOM's customers, the NCA, JCS, and Unified CINCs, GTN will pass the information to the Global Command and Control System (GCCS) and the Joint Operation Planning and Execution System (JOPES). GTN also implements the USTRANSCOM chartered tasking to provide for deployment-related ADP systems integration and to provide centralized oversight of traffic management in peace and war. GTN is included in the Transportation Working Capital Fund (TWCF) and provides Intransit Visibility (ITV) required in OSD's Total Asset Visibility (TAV) program. We anticipate Full Operational Capability (FOC) with an objective of Mar 00, Threshold Sep 00, and currently scheduled for Apr 00. Service Cost Position was approved 23 May 97. An amended Life Cycle Cost/Benefit Analysis was completed in Mar 97 and reflected hard savings, cost avoidances, and estimated non-quantifiable benefits of \$2.356 billion. The discounted benefit to cost ratio (BCR) for the preferred alternative was 5.77 to 1. Therefore, for each dollar spent on requirements, \$5.77 of benefits will be accrued over the life of GTN.

B. Contract Strategy:

Contract office is HQ AMC/LGCFD, 108 E Martin St Rm 216, Scott AFB IL 62225-5015
 Contract F19628-95-C-0029, Development of the Global Transportation Network; Prime contractor Lockheed Martin, Tactical Defense Systems, 9255 Wellington Road, Manassas VA 22110-4121
 The GTN Development contract was awarded in March 1995 as a Cost Plus Award Fee (CPAF), with a smaller portion for hardware that was Firm Fixed Price (FFP). There is a clause in the contract to convert

the CPAF portion to fixed price if necessary. Air Force Acquisition Regulation Supplement Appendix AA, Formal Source Selection for Major Acquisitions, was used. Market research was accomplished through Commerce Business Daily, vendor conferences, and a draft Request for Proposal through Electronic Systems Center bulletin board. Source Selection evaluation criteria and best value analysis was performed during contract evaluation, and Unisys (Now Lockheed Martin C² Integration Systems) was awarded the contract.

C. Program Management:

Program Manager Colonel Ronald F. Casey, USTRANSCOM/TCJ6-GTNPMO
Program Executive Officer Brig Gen Richard V. Reynolds, AFPEO/AT
GTN is Acquisition Category (ACAT) IAM and reviewed by the Major Automated Information System Review Council (MAISRC). GTN has been reviewed by the MAISRC on three occasions. In April 1993, the MAISRC issued tasking to proceed to Milestone II. As part of this tasking, the United States Transportation Command (USTRANSCOM) was required to prepare a draft Life Cycle Cost/Benefit Analysis (LCC/BA) in September 1993 and, after review by the Office of the Director (OD) Program Analysis and Evaluation (PA&E), to produce a final version. The System Program Director (SPD) for GTN and OD (PA&E) agreed on a methodology and responsibilities for executing a cost and benefits study of GTN. The LCC/BA, dated January 1995, was a final report of that study and was validated by the USTRANSCOM Command, Control, Communications and Computer Systems (C4S) Functional Panel. In September 1995, MAISRC issued a System Decision Memorandum (SDM) authorizing GTN to proceed to Milestone IIIA and requiring GTN to in-process brief the MAISRC following Initial Operational Capability. The third MAISRC review supported the Delivery 1 Deployment Decision. The LCC/BA was updated in March 1997. Initial Operational Capability (IOC) for GTN ITV was achieved 7 Apr 97. The Service Cost Position (SCP) was approved in May 1997. GTN uses Integrated Process Teams.

D. Infrastructure Strategy:

1. All hardware requirements are included in this funding.
 2. There are no transport requirements for GTN.
 3. The GTN requirements are managed through Earned Value Management (EVM).
 4. GTN is Joint Technical Architecture (JTA) compliant (DISA/JEBD memo, 5 Dec 96).
- GTN was certified Level 5 Common Operating Environment (COE) (DISA D626 memo, 31 Mar 97)

PART III: COST, SCHEDULE, AND PERFORMANCE GOALS

A. Description of Performance based system:

GTN uses Earned Value to monitor actual costs and schedules versus planned. Lockheed Martin submits a monthly Cost Performance Report (CPR) and quarterly Contract Funds Status Report (CFSR). Performance Analyzer (PA) is used to enhance cost performance management analysis.

B. Baseline Information:

The current Acquisition Program Baseline was established in FY95. The Base Year (BY95\$M) Capital Software Objective \$165.742, Threshold \$190.603; Capital Hardware Objective \$37.664, Threshold \$39.547; Operating Objective \$58.905. Then Year Objective (\$M) Capital Software \$172.785; Capital Hardware \$39.242; Operating \$61.479.

C. Cost, Schedule, and Performance

1. Cost and Schedule Goals:

COMMAND AND CONTROL

	FY98 Pres. Bud FY97	FY99 Pres. Bud FY97	FY98 Pres. Bud FY98	FY99 Pres. Bud FY98	FY98 Pres. Bud FY99	FY99 Pres. Bud FY99
a. GTN						
Dev/Modernization	45040	51956	17375	66830	9985	16039
Current Services	4168	4233	6036	5925	7943	6823
Total	49208	56189	23411	72755	17928	22862

FY98: Increase between FY98-PB (for FY98) and FY99-PB (for FY98) for Development/Modernization is based on increased functionality as GTN reaches a critical crossroads in development. After working with our customers and assessing what commercial industry is doing, it became clear that we have only touched on GTN's potential for improving Defense Transportation System (DTS) operations. The increased funding will bring on electronic data interchange from our transportation industry partners to vastly improve the ITV picture, continue to enhance our worldwide web application, move into the world of "customization" where users will be able to tailor GTN information to their mission needs; and begin using GTN to manage and measure DTS performance on a near-real time basis by integrating cost scenario estimating, Working Capital Fund rate charges, and operational analysis capabilities. USTRANSCOM was assigned the responsibility by OSD for coordinating the distribution and synchronization of transportation-related reference tables. GTN, as the source of record for DoD In-transit Visibility (ITV) information, will be the repository for these tables. Implementation of a GTN Transportation Reference Server (TRS) will serve as the common source of reference tables for DoD transportation automated information and command and control systems. With this server, DoD can implement updates worldwide in a cohesive and nondisruptive manner, while maintaining interoperability and data integrity between systems. We plan on using Web Server technology to expand user access. System Software is required to increase functionality and versatility for GTN Delivery 2 and Delivery 3 to include: Windows 95 and Windows NT compatibility, additional government feeder system interface changes, enhance GTN's Enhanced Web (E-Web) capabilities, and full Logbook integration. Funds will be used to make GTN play a greater role in our total business reengineering efforts. Interactivity initiatives will evolve GTN from a passive information system to an active management system allowing user input. We will be able to author and publish documents such as situation reports and duty logs that will be accessible by multiple headquarters within DoD. It will provide improved ITV and transportation command and control as select users can update the database with actual cargo, passenger, or force information. We have already taken steps on the interactive path by adding a movement request page to our GTN E-Web. This will provide users the opportunity to request transportation services such as special assignment airlift missions and operational support airlift via GTN. We plan to continue expansion of JAVA technology to provide users one-stop GTN E-Web access for multiple functionalities. The increase brings the FY98 funding level up to the Air Force Cost Analysis Agency's approved Service Cost Position.

FY99: Increase between FY98-PB (for FY99) and FY99-PB (for FY99) Development/Modernization is a result of bringing funding in line with the Air Force Cost Analysis Agency's approved Service Cost Position and to complete development of the Reference Server and Commercial Transaction Interface Capability.

FY99: Increase between FY98-PB (for FY99) and FY99-PB (for FY99) for current services is a result of increased maintenance costs for the Reference Server and Commercial Transaction Interface.

	FY97/98	FY98/99
GTN		
Dev/Modernization	51956/66830	66830/16039
Current Services	4233/5925	5925/6823
Total	56189/72755	72755/22862

FY97/98: FY98 funds provides for increasing and enhancing functionality as GTN continues development. The increasing need to keep up with commercial industry and its practices puts GTN center stage for improving Defense Transportation System (DTS) operations. Funding in FY98 will allow us to continue improving electronic data interchange from our transportation industry partners, to garner benefits from the improved ITV picture, to continue worldwide web application enhancements, to increase "customization" where users can tailor GTN information to their mission needs; and to use GTN as a management and measurement tool for DTS performance. The integration of cost scenario estimating, Working Capital Fund rate charges, and operational analysis capabilities will be improved as well. USTRANSCOM will be able to continue to carry out their responsibility for coordinating the distribution and synchronization of transportation-related reference tables, with GTN as the repository for these tables. GTN Transportation Reference Server (TRS) will continue to be improved, serving as the common source of reference tables for DoD transportation automated information and command and control systems. With this server, DoD can implement updates worldwide, while maintaining interoperability and data integrity between systems. Increase functionality and versatility will be primary goals as development continues and GTN approaches Full Operation Capability (FOC). Interactivity initiatives will continue as GTN becomes an active management system. Documentation, such as situation reports and duty logs, will be accessible by multiple headquarters within DoD, providing improved ITV and transportation command and control. GTN will acquire greater interactivity via a movement request page to the GTN E-Web, allowing visibility into transportation services such as special assignment airlift missions and operational support airlift.

FY98/99: Decreased funding in FY99 was a result of GTN being scheduled for full operational capability in Aug 99. A reassessment of the requirements is currently in the process due to the slippage of full operational capability to Apr 00.

2. Performance Goals:

Milestone table:	Approved Program Objective/Threshold	PM's Current Est.
Prototype Contract Award		Mar 89
Version 1.0 Delivery (1)		Sep 90
Version 2.0 Delivery (1)		May 92
MNS Approval		Jun 92
Version 2.1 Delivery (1)		Mar 93
MAISRC IPR		Apr 93
ORD Approval		May 93
Version 2.2 Delivery (1)		Jan 94
RFP for Development Contract		May 94
Version 2.3 Delivery (1)		Aug 94
Prototype Maintenance Contract		Sep 94
ORD Update		Jan 95
Development Contract Award		Mar 95
MAISRC Milestone II Review		Sep 95

Delivery #1		Nov 96
MAISRC Delivery 1 Deployment Approval		Mar 97
IOC	Mar97/Sep97	Apr 97
Deployment Approval		Feb98
ORD Update		Aug 97
Delivery 2.1		Feb98
Delivery 2.2		Mar98
MAISRC Delivery 2 Deployment Approval		May98
Delivery #3		Oct99
Delivery #4		Feb00
Delivery #5		Feb00
FOC	Mar 00/Sep 00	Apr00

Footnote:

(1) Versions 1.0 through 2.3 were prototypes

D. Year 2000 Special Information: (\$K)

Y2K Phase :	Jan 1997	Nov 1997	Jan 1998
Assessment	\$0	\$17	\$24
Renovation	\$0	\$825	\$1,004
Validation	\$0	\$162	\$171
Implementation	\$0	\$99	\$126
Total	\$0	\$1,103	\$1,325

Funding has been accomplished within project funding. We have contingency plans that will enable us to operate if other interfaces are not able to convert to compliant interfaces. Fielding new user functionality has slightly degraded as we go to new operating systems/data bases. There may be a slight delay in other GTN development projects as a result of implementing and funding Y2K requirements.